FACT SHEET

Developing a Comprehensive Salinity Management Plan for the Central Valley Region: CV-SALTS

A reliable water supply is critical to California's continued prosperity and the health of its residents and environment. Maintaining water quality is the key to ensuring that existing supplies are protected, but salinity, including nitrate, threatens the long-term reliability of water supplies in parts of the Central Valley Region.

Salt in the Basins

The Central Valley Region is divided into three basins: the Sacramento River Basin, the San Joaquin River Basin, and the Tulare Lake Basin.

The Sacramento Basin generally receives enough precipitation to dilute salinity. There are areas where groundwater is at risk from specific saline discharges, but viewed as a whole, the basin does not experience problem salinity. However, salts originating in the Sacramento Basin reach the Delta pumps of the state and federal water projects and contribute to salinity problems in the San Joaquin Valley and other regions of the State.

The San Joaquin Basin receives considerably less rainfall than the Sacramento Basin. Supplemental irrigation is needed to support the multi-billion dollar agricultural industry that the Basin is famous for. Irrigation water is pulled in from the Delta and consists of a combination of Sacramento and San Joaquin River flows with their respective salt loads. Some of the imported salt discharges back to the Delta and out to the ocean, but annually the pumps bring in more salt than discharges, resulting in a chronic salt imbalance in the basin.

The Tulare Lake Basin is also home to a world-renowned agricultural economy supported in part by water deliveries from the Delta. Except in very wet years, the basin has no natural discharge route so imported salts continue to build up in the groundwater unless captured and sequestered (a temporary storage solution).

Which salts?

In this program, the major ionic compounds we're concerned about contain nitrate, calcium, sodium, magnesium, potassium, bicarbonate, sulfate and/or chloride. In the right amounts, some of these materials are considered essential for health, but in excessive amounts they cause problems. Once dissolved, salts cannot be separated from water easily.

Beneficial use of water

Agriculture is a major industry in the Central Valley and it is also the sector where problem salinity is often first observed. Other uses of water that can be affected when salinity increases beyond acceptable levels include municipal use, environmental use, and industrial use. High salt concentrations can impact crop growth, cause health and taste problems for municipal users, and decrease the life of water delivery, conveyance

and treatment systems both at the community level and in individual homes. The environment is also vulnerable to salt impacts. Thousands of acres of land in the Tulare Lake Basin are no longer farmable due to salinity buildup.

Salt sources
In addition to salts that are brought in with imported water, we import salts in the fertilizers and compost, water softener salts, detergents and the other salt-containing chemicals we use on a regular basis. Some Valley soils are naturally high in salts. Precipitation over the millennia and irrigation over the past century has caused some of these of these salts to be released from parent rocks and soil to enter groundwater. Salts being added or dissolved are only part of the picture, though. Evaporation and consumptive use both result in water being removed and salts being left behind.

What is CV-SALTS?
CV-SALTS (Central Valley Salinity Alternatives for Long-Term Sustainability) is the Board's initiative to address salinity throughout the region in a comprehensive, consistent and sustainable manner. The Central Valley Regional Water Quality Control Board and the State Water Resources Control Board will use CV-SALTS as a platform to review and update the Water Quality Control Plans for the Sacramento and San Joaquin River Basins, the Tulare Lake Basin and the Delta Plan in regards to salinity management. The effort encourages regional collaborations for more efficient and effective salinity management of regulated discharges and actions beyond the jurisdiction of the Boards. Examples of regional collaborative salinity management projects might include: regional salt storage or conveyance systems, treatment facilities, Real-Time Management, water or salt trading, or other actions that the Boards are unable to require but which could facilitate sustainable salinity management in the region.

Where can I learn more?
The CV-SALTS webpage contains background information, links to key salinity reports, a link to sign up for notification when meetings or reports become available, and information on on-going efforts. Go to:
www.waterboards.ca.gov/centralvalley/water_issues/salinity
Or use your favorite search engine and type in **CV-SALTS**.

How can I get involved?
There are four stakeholder committees currently meeting to assist the Board as it develops CV-SALTS. Contact Gail Cismowski (gcismowski@waterboards.ca.gov , 916-464-4608) or Jim Martin (jmartin@waterboards.ca.gov, 916-464-4685) for more information.